

Central Banks, Macroeconomic Policy and Financial Markets
FNCE 7400
Fall 2023

Professors

Professor [Zvi Eckstein](#) (mostly Q1)
Email: zvie@wharton.upenn.edu

Professor [Joao F. Gomes](#) (mostly Q2)
Email: gomesj@wharton.upenn.edu

Office Hours (in person)
Tuesday 3:30 – 4:30 pm and by appointment

Teaching Assistants

Alina Song
Email: songjj@wharton.upenn.edu
Tasaneeya Viratyosin
Email: tviratyo@wharton.upenn.edu

Office hours (Zoom):
Wednesday 5:00-6:00 pm

Course Overview

Description

Macroeconomic events and policies play a crucial role in driving financial market performance over time. This is an advanced course in applied macroeconomics that discusses both how macroeconomic policy works today and how it impacts the broad economy and financial markets. It is assumed that students have a good knowledge of *intermediate* undergraduate macroeconomic analysis and at least a *basic* understanding of the key financial market indicators.

The first half of the class focuses on **understanding and predicting Central Banking (CB) decision making and how monetary policy is conducted today**. We provide the methods and knowledge on how central banks think and implement policies to reach the goals of price and financial stability as well as support of growth and employment. The core of this section connects economic knowledge, legal frameworks and the goals and methods followed by central banks. **We explain the rationale for the policy prescriptions implemented today mainly by the Federal Reserve Bank (Fed) in the US** as well as by the European Central Bank (ECB), Bank of Israel (BOI) and some other major countries. We discuss the current events of inflation and risk of recession as the world exits from the Covid-19 crisis and central banks adjust their monetary policy. We will also cover events before and after the 2008 financial crisis and attempt to draw

lessons from the 1970s stagflation episodes. Students will simulate and forecast upcoming central banks' policy decisions based on current data and the latest theory.

The second half studies government policy more broadly and how financial markets process macroeconomic events and policy announcements. It discusses the key macroeconomic drivers of bond and stock market valuations and how they respond to economic news and policy actions by central banks and governments. We discuss the impact of recent developments and, in particular, the consequences of the aggressive policy interventions to the Covid-19 recession and the subsequent economic recovery. Students will estimate the impact of key macro developments and assess their implications for bond and equity valuations.

Prerequisites

This course assumes students have a solid knowledge of intermediate macroeconomics, or similar, principles of finance and some basic regression analysis.

Meeting Information

Class Times

Tuesday and Thursday: 10:15-11:45 SHDH 213 (Section 7400.1) and 1:45 PM-3:15 PM SHDH 213 (Section 7400.2).

However, most guest speakers will be able to talk to *only one session* over Zoom. All sessions will be **recorded** and available on Canvas.

Class Structure

Most classes will:

- **Start with a class discussion of the latest news** or data related to the class. Our main sources will be the *Financial Times* and *The Wall Street Journal*, as well as *The Economist* and *Bloomberg*. Readings will usually be shared on the day before class.
- **Conclude with a short Quiz.** The Quiz aims to review the core concepts discussed during that class. Quizzes are on Canvas. They should be done individually using a mobile device.

Students are expected to attend regular lectures and contribute actively to class discussions. If you cannot attend for health or family emergency reasons, you should still participate in any follow up online discussions. Both in class and online discussions will count towards your participation grade.

For lectures with distinguished guest speakers, the format will generally that of a presentation followed by student Q&A. The **Final Quiz** will be based **entirely** on the content of these sessions. Guest lectures might need to be scheduled outside regular class time. They will all be recorded and posted on Canvas.

Classroom Safety

The exact **classroom safety rules** will conform with the latest guidance from Penn and the city of Philadelphia. Masks are optional.

Requirements and Grading

The final course grade will be calculated as follows:

- **Team Assignments:** to be done by teams of 3-4 students (30%)
- **Active participation:** in class discussions and/or online discussion boards (20%)
- **11 Quizzes (drop lower score):** (30%)
- **A Long Quiz:** covers presentations by guest speakers (20%)

Key Deliverables Dates

- Sep. 7 - Presentation and discussion of Assignment 1
- Sep 19 - Presentation and discussion of Assignment 2
- Oct 3 - Presentation and discussion of Assignment 3
- Nov 14 - Presentation and discussion of Assignment 4
- **Dec 6 – Long Quiz**

Course Materials

Because this is an advanced class that discusses real-time events there is no suitable textbook. Most of our references provide supportive information but ***are not required*** to follow the class material. They include a few useful chapters or sections from some (text) books, as well as reports, lectures and several recently published articles on each of the topics. We will **provide all necessary readings and data for the assignments**. Slides, readings and assignment materials can be found on Canvas.

Penn provides free online subscriptions to several major financial publications ([*Financial Times*](#), [*Wall Street Journal*](#), [*New York Times*](#)) and we strongly recommend you take advantage of them to be able to link to any web articles we will post from those publications.

In addition, Yardeni Research (<https://www.yardeni.com>) provides incredibly detailed content on financial markets and the macroeconomy. It is freely available and updated daily.

Background Reference:

- Andy A. Abel, Ben S. Bernanke and Dean Croushore, *Macroeconomics* (10th edition) Pearson. (ABC)

Tentative Schedule

1. Covid-19, the Great Financial Crisis and Central Banks Intervention (Aug 29)

Readings

Optional background:

- ABC, pp. 568-574.
- The Economist, "[Central Banks: The Danger of Excessive Distraction](#)", 2022.

2. Inflation and Interest Rates: Foundations (Aug. 31)

Main Question: What are the optimal long run (target) inflation and nominal interest rate?

Readings

Priority:

- FOMC, [Statement on Longer-Run Goals and Monetary Policy Strategy](#), Adopted January 24, 2012; as reaffirmed effective January 31, 2023.
- Jerome H. Powell, "[New Economic Challenges and the Fed's Monetary Policy Review](#)", Jackson Hole, Wyoming, August 27, 2020. Also on [Video](#)

Optional background:

- ABC, pp. 63-248; 248-252; 263-270; 276-278; 474-481

Optional additional:

- The Economist, "[Central-bank digital currencies are talked about more than coming to fruition](#)", 2023.
- The Economist, "[A new era of economics: starting over again](#)", 2020
- Ben S. Bernanke, "[The Non-Monetary Effects of the Financial Crisis in the Propagation of the Great Depression](#)", *American Economic Review*, Vol. 73(3), 1983, pp. 257-276.
- Robert, E. Lucas Jr, "[Inflation and Welfare](#)", *Econometrica*, Vol. 68(2), 2000, pp. 247-274.
- Thomas, S. Sargent, "[The End of the Four Big Inflations](#)", in *Inflation: Causes and Effects*, Robert E. Hall (editor), University of Chicago Press, 1982.

3. The Taylor Rule: How do Central Banks Conduct Monetary Policy? (Sep. 5 & 7)

Main Question: How is the short-term interest rate determined?

Readings

Priority:

- Ben S. Bernanke, "[Monetary Policy and the Housing Bubble](#)", speech at the American Economic Association, 1/2010
- Ben S. Bernanke, (4/28/2015), "[The Taylor Rule: A Benchmark for Monetary Policy?](#)", Brookings.
- John Taylor, "[The Financial Crisis and the Policy Responses: An Empirical Analysis of what Went Wrong](#)", keynote speech, 2008.

Optional background:

- ABC, pp. 542-582

Optional additional:

- The Economist, "[Inflation shows the value and the limit of monetary-policy rules](#)", 2022.
- John Taylor, "[Discretion Versus Policy Rules in Practice](#)", in *Carnegie-Rochester Conference Series on Public Policy*, 39, 1993, pp. 195-341.
- John, B. Taylor, "[Monetary Policy Rules Work and Discretion Doesn't: a Tale of Two Eras](#)", *The Journal of Money, Credit and Banking*, vol 44(6), pp. 1017-1032. 2012.

DUE: Sep. 7 - Presentations and discussion of Assignment 1.

Was the Fed federal funds rate too low before 8/2007 and after 10/2008?

4. Monetary Policy, Bond Yields and Credit Spreads (Sep. 12 & 14)

Main question: How do bond markets respond to macroeconomics and monetary policy?

Readings

Priority:

- Federal Reserve Bank of Cleveland, "[Yield Curve and Predicted GDP Growth](#)", 2022
- The Economist, "[Yield Curves help Predict Economic Growth Across the Rich World](#)", 2019
- John Williams, "[Measuring the Natural Rate of Interest: Past, Present and Future](#)", Board of Governors, May 2023

Optional additional

- Arvind Krishnamurthy and Annette Vissing-Jorgensen, "[Aggregate Demand for Treasury Debt](#)", *Journal of Political Economy*, vol 120(2), 2012, pp. 233-267.
- Federal Reserve Bank of New York, [Measuring the Natural Rate of Interest](#)

5. Policy at the Zero Lower Bound for Interest Rates (Sep. 19 & 21)

Main question: Is monetary policy effective at the zero lower bound or with negative interest rates?

Readings

Priority:

- Ben S. Bernanke, "[The Crisis and the Policy Response](#)", At the Stamp Lecture, London School of Economics, 2009; Also Jackson Hole speech 2009.
- Bernanke, Ben, S. "[Monetary Policy in New Era](#)", Peterson Institute for International Economics, 2017.
- Kenneth Rogoff, "[The Case for a Deeply Negative Interest Rate](#)", Project Syndicate, 2020.

Optional background:

- ABC, pp. 569-573, 620

Optional additional:

- The Economist, "[The Perils of Expanded Balance-Sheets](#)", 2022
- Arvind Krishnamurthy and Annette Vissing-Jorgensen, "[The Effect of Quantitative Easing Policies on Interest Rates: Channels and Implications for Policy](#)", Brookings Papers on Economic Activity, 2011.

DUE: Sep. 19: Presentations and discussion of Assignment 2

Simulation and discussion of the FOMC decision of 9/20. The Fed monetary policy since March 2020 and what is expected for the future.

6. Flexible Inflation Targeting Policy: Theory and Practice (Sep 26 & 28)

Main question: What is the theory and practice of modern monetary policy analysis?

Readings:

Priority:

- Zvi Eckstein: [Notes on the DSGE model](#)

Optional background:

- ABC, 160-167; 170-175; 339-342; 441-443; 490-497; 518-527

Optional additional:

- John Williams, “[The Theory of Average Inflation Targeting](#)”, New York Fed speech, 2021.
- Jordi Gali, “[The State of New Keynesian Economics: A Partial Assessment](#)”, *Journal of Economic Perspectives*, Vol. 32(3), pp. 87–112.
- Lawrence J. Christiano, Martin S. Eichenbaum, and Mathias Trabandt. “[On DSGE models](#)”, *Journal of Economic Perspectives*, Vol 32(3), pp. 113–140.

7. The ECB New Monetary Strategy, The Debt Crisis and Current Policy (Oct. 3)

Main Question: How does fiscal and monetary policy interact and affect financial stability?

Readings

Priority:

- ECB, [The ECB New Monetary Strategy](#), July 8, 2021.
- Mario Draghi, “[Whatever it Takes](#)”, speech on 7/26/2012.
- Mario Draghi, “[Unemployment in the Euro Area](#)”, speech at Jackson Hall, 8/2014.

Optional background:

- ABC, 604-627

Optional additional:

- The Economist- [The ECB's Masterplan to Manipulate markets](#) 7-16-2022.
- The Economist - [How higher interest rates squeeze government budgets](#) - 7-16-2022.

DUE: Oct. 3: Presentations and discussion of Assignment 3.

Simulation of the next ECB monetary policy decision. Does ECB policy under Mario Draghi and Christine Lagarde follow a Taylor rule or only the goal of “price stability”?

8. The Outlook for US Monetary Policy (Oct. 5)

Main Question: What is the Near-term Outlook for U.S. Monetary Policy?

Guest speaker: Loretta Mester (President, Federal Reserve Bank of Cleveland)

NOTE: The presentation takes place only during the 1:45-3:15 session

9. Small Open Economies: Bank of Israel Monetary Policy Framework (Oct. 24)

Main questions: How different is monetary policy in small open economies? Should it include exchange rate intervention?

Guest speaker: Professor Amir Yaron (Governor, Bank of Israel)

NOTE: The presentation takes place only during the 10:15-11:45 session

Reading

Priority:

- Latest minutes on [Bank of Israel Interest Rate Decisions](#)

Optional Additional:

- Amir Yaron “[Are we Again Taking Financial Stability for Granted?](#) (Or: Do we Need Central Banks?)”, Israel Economic Review Vol. 17(1), pp.135–143, 2019

10. Inflation and Fiscal Policy (Oct. 26)

Main question: How does fiscal policy affect inflation and economic growth?

Readings

Priority:

- Brookings Institution, [Hutchins Center Fiscal Impact Measure](#)
- Moody’s Analytics, [Global Fiscal Policy in the Pandemic](#), 2022

Optional additional

- Valery Ramey and Sarah Zubairy, “[Government Spending Multipliers in Good Times and in Bad: Evidence from US Historical Data](#)”, Journal of Political Economy, 2018.

11. The Long Run Fiscal Outlook (Oct 31)

Main question: What are the causes and effects of a fiscal crisis? What is the likelihood of a fiscal crisis in the US?

Readings

Priority:

- Congressional Budget Office, [US Long Term Budget Outlook](#), 2023.
- Penn Wharton Budget Model, “[Can Higher Inflation Help Offset the Effects of Larger Government Debt?](#)”, 2021

Optional additional

- Olivier Blanchard, “[Public Debt and Low Interest Rates](#)”, American Economic Review, 2019.
- Carmen M. Reinhart and Kenneth S. Rogoff, “[Financial and Sovereign Debt Crises: Some Lessons Learned and Those Forgotten](#)”, IMF Working Paper, 2013

12. Monetary Policy in the Euro-Zone (Nov 2)

Guest lecture: Dr. Frank Smets (Counsel to the Executive Board, European Central Bank)

Main question: What is the ECB monetary policy framework?

NOTE: The presentation takes place only during the 10:15-11:45 session

13. Equity Markets and the Macroeconomy (Nov 7, 9 and 14)

Main Questions: How do macro variables and policies impact stock valuations? What is the impact of inflation on the various asset classes?

Readings

Priority:

- Roger Ibbotson and James Harrington, [Stocks, Bonds, Bills and Inflation \(SBBI\) Summary Edition](#), CFA Institute 2021
- Kevin Lansing, “[Stock Market Valuations and the Macroeconomy](#)”, San Francisco Fed, 2017

Optional additional

- Jeremy Siegel, “[Stocks for the Long Run](#)”, 6th edition, McGraw Hill, 2023
- Xiang Fang, Yang Liu and Nikolai L. Roussanov, “[Getting to the Core: Inflation Risks Within and Across Asset Classes](#)”, working paper, Wharton School, 2022
- Yardeni Research, [Predicting Valuation](#)

DUE: Nov 14 Presentation and discussion of Assignment 4.

Is the US stock market overvalued?

14. Interest Rate Strategies (Nov. 16)

Guest lecture: Dr. Praveen Korapaty (Chief Interest Rates Strategist, Goldman Sachs)

Main question: What is the outlook for interest rates in the major economies?

NOTE: The presentation takes place only during the 10:15-11:45 session

15. The US Macro Outlook (Nov. 28)

Guest Lecture: Dr. Mark Zandi (Chief Economist, Moody Analytics)

Main question: What is the near-term outlook for the US economy?

NOTE: The presentation takes place only during the 10:15-11:45 session

16. Macro Investment Strategies (Nov. 30)

Guest Lecture: Alp Ercil (CEO, Asia Research and Capital Management)

Main question: Investment considerations in a changing global macro environment

17. Summary and Conclusion (Dec. 5)

Summary of guest speaker presentations and reflection on the main themes of the course.

DUE: Dec. 6 LONG QUIZ on Guest Speaker Presentations.

Ethics Matrix

	Materials	People
--	-----------	--------

FNCE 240/740 Central Banks, Macroeconomic Policy and Financial Markets	Calculator	Laptop / other electronics	Summary sheet	Textbooks / Class Notes	Past notes / summaries	Past exams / problems	Internet content / other outside materials	Group of 3-4	Other student(s) in same section	Student(s) in other sections (same term)	Wharton student not taking the class this term	Person outside of Wharton
Quizzes	A	A		A								
Assignments	A	A		A			A	W	D	D	D	D
Long Quiz Preparation	A	A	A	A	A	A	A	W	W	W	D	D
Long Quiz	A	A	A									
	A = Allowed material Shaded Cell = Not allowed							W = Allowed to work together D = Discussion of general concepts and procedures is allowed but no sharing of specific answers. Shaded Cell = Not allowed				
<p>The information above covers many common situations but probably not every circumstance. Remember: the Wharton Code of Ethics that you accepted requires, among other things, that you represent yourself and your work honestly, do not try to gain unfair advantage over other students, follow the instructor's guidelines and respect confidentiality of your work and that of others. Should you have questions, please contact your professor.</p>												